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# Tuna Newsletter

National Marine Fisheries Service
- Southwest Region
- Southwest Fisheries Science Center

February 1993 Issue 108

## U.S. TUNA STATISTICS

*Editor's note: The following articles were prepared by NMFS personnel from data and information gathered from sources in the U.S. tuna industry and government.*

### U.S. CANNED TUNA INDUSTRY HIGHLIGHTS, THIRD QUARTER 1992

Total receipts of tuna by U.S. canners during the third quarter of 1992 (July-September) increased by 1% to the equivalent of 118,900 short tons (st) of whole fish (round weight), compared to the third quarter of 1991 (Table 1). The principal species received was skipjack tuna with 60% of the total, followed by albacore and yellowfin with 26% and 14% of the total, respectively. Receipts for the first three quarters of 1992 totaled 344,000 st, a 2% decrease from the previous year (Table 2). Albacore receipts were up 54% for the third quarter and up 23% for the first three quarters of the year, while yellowfin and skipjack receipts were down 16% and 9%, respectively, for the third quarter and down 17% and 4% for the first three quarters. Although the vast majority of tuna received by U.S. canners is whole fish, some quantity of tuna is received as loins or gilled-and-gutted. The ratio of tuna loins to total receipts for the third quarter of 1992 was 4%, compared to 7% for the third quarter of 1991. Receipts of tuna loins for the first three quarters of 1992 totaled 21,100 st, down 19% from the previous year. (The round weight totals used above were approximated by converting weights of loins and gilled-and-gutted receipts by factors of 2.25 and 1.11, respectively. For the remainder of this article, unconverted receipts are used unless otherwise stated.)

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**Table 1.** Total U.S. cannery receipts (st) by classification of tuna for the third quarters of 1991 and 1992. Totals may not add due to rounding.

| Jul-Sep | Type | Albacore | Skipjack | Yellowfin[1] | TOTAL |
|---|---|---|---|---|---|
| 1991 | ROUND | 20,300 | 64,200 | 15,700 | 100,100 |
| | GILLED & GUTTED | 0 | 0 | 800 | 800 |
| | LOIN | * | 6,300 | 1,200 | 7,400 |
| | TOTAL (as received) | 20,300 | 70,400 | 17,600 | 108,300 |
| | TOTAL (estimated round wt)[2] | 20,300 | 78,300 | 19,100 | 117,700 |
| 1992 | ROUND | 31,300 | 65,500 | 11,800 | 108,500 |
| | GILLED & GUTTED | 0 | 0 | 300 | 300 |
| | LOIN | * | 2,700 | 1,800 | 4,500 |
| | TOTAL (as received) | 31,300 | 68,200 | 13,900 | 113,300 |
| | TOTAL (estimated round wt)[2] | 31,300 | 71,500 | 16,100 | 118,900 |

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

[2]Converted to round weight by using factors of 1.11 for gilled-and-gutted and 2.25 for loins.

Table 2. Total U.S. cannery receipts (st) by classification of tuna for the first three quarters of 1991 and 1992. Totals may not add due to rounding.

| Jan-Sep | Source | Albacore | Skipjack | Yellowfin[1] | TOTAL |
|---|---|---|---|---|---|
| 1991 | ROUND | 54,500 | 160,400 | 74,600 | 289,600 |
| | GILLED & GUTTED | 0 | 0 | 3,100 | 3,100 |
| | LOIN | 3,600 | 18,000 | 4,300 | 26,000 |
| | TOTAL (as received) | 58,200 | 178,500 | 82,000 | 318,600 |
| | TOTAL (estimated round wt)[2] | 62,700 | 201,000 | 87,700 | 351,500 |
| 1992 | ROUND | 77,200 | 163,300 | 53,800 | 294,300 |
| | GILLED & GUTTED | 0 | 0 | 2,100 | 2,100 |
| | LOIN | * | 13,600 | 7,500 | 21,100 |
| | TOTAL (as received) | 77,200 | 176,900 | 63,300 | 317,400 |
| | TOTAL (estimated round wt)[2] | 77,200 | 193,900 | 72,900 | 344,000 |

*Less than 100 st reported for this category.

[1]May include a small amount of bigeye tuna.

[2]Converted to round weight by using factors of 1.11 for gilled-and-gutted and 2.25 for loins.

Table 3. U.S. cannery receipts (st) of domestic and imported tuna by species for the third quarters of 1991, 1992 and the recent (1987-91) third quarter averages. Totals may not add due to rounding.

| Jul-Sep | Source | Albacore | Skipjack | Yellowfin[1] | TOTAL |
|---|---|---|---|---|---|
| AMERICAN SAMOA & CALIFORNIA | | | | | |
| 1991 | DOMESTIC | 900 | 37,800 | 3,800 | 42,500 |
| | IMPORTED | 6,900 | 10,000 | 1,600 | 18,500 |
| | TOTAL | 7,800 | 47,700 | 5,400 | 61,000 |
| 1992 | DOMESTIC | 2,000 | 24,900 | 3,900 | 30,800 |
| | IMPORTED | 11,700 | 9,600 | 4,100 | 25,400 |
| | TOTAL | 13,700 | 34,500 | 8,100 | 56,200 |
| 1987-91 Average | DOMESTIC | 1,400 | 22,100 | 14,200 | 37,600 |
| | IMPORTED | 9,300 | 8,800 | 3,100 | 21,200 |
| | TOTAL | 10,600 | 30,900 | 17,300 | 58,800 |
| PUERTO RICO | | | | | |
| 1991 | DOMESTIC | 0 | 4,000 | 2,100 | 6,000 |
| | IMPORTED | 12,500 | 18,700 | 10,100 | 41,400 |
| | TOTAL | 12,500 | 22,700 | 12,200 | 47,400 |
| 1992 | DOMESTIC | 0 | 28,600 | 4,000 | 32,700 |
| | IMPORTED | 17,600 | 5,100 | 1,800 | 24,400 |
| | TOTAL | 17,600 | 33,700 | 5,800 | 57,100 |
| 1987-91 Average | DOMESTIC | 200 | 5,500 | 11,700 | 17,500 |
| | IMPORTED | 13,700 | 19,900 | 13,500 | 47,000 |
| | TOTAL | 13,900 | 25,400 | 25,200 | 64,500 |
| TOTAL | | | | | |
| 1991 | DOMESTIC | 900 | 41,700 | 5,800 | 48,500 |
| | IMPORTED | 19,400 | 28,700 | 11,800 | 59,800 |
| | TOTAL | 20,300 | 70,400 | 17,600 | 108,300 |
| 1992 | DOMESTIC | 2,000 | 53,500 | 8,000 | 63,400 |
| | IMPORTED | 29,300 | 14,700 | 5,900 | 49,800 |
| | TOTAL | 31,300 | 68,200 | 13,900 | 113,300 |
| 1987-91 Average | DOMESTIC | 1,600 | 27,600 | 25,900 | 55,100 |
| | IMPORTED | 22,900 | 28,700 | 16,600 | 68,200 |
| | TOTAL | 24,500 | 56,300 | 42,500 | 123,300 |

[1]May include a small amount of bigeye tuna.

Receipts of tuna in American Samoa and California for the third quarter of 1992 were down 8%, compared to the third quarter of 1991, due to a substantial decrease in skipjack receipts (Table 3). Receipts in Puerto Rico were up 20% with increases in albacore and skipjack receipts more than offsetting a decrease in yellowfin receipts. Domestically-caught deliveries to canneries in Puerto Rico were up over fivefold, almost entirely due to increased skipjack deliveries, while the domestic component of deliveries to American Samoa/California was down 28%. Skipjack was easily the largest component of all domestic deliveries for the first three quarters of 1992 at 112,400 st, followed by yellowfin, 37,000 st, and albacore, 4,900 st (Table 4). Imports accounted for 51% of the tuna delivered to U.S. canners for the first nine months of 1992.

Albacore was the leading import for the third quarter of 1992 at 29,300 st, followed by skipjack and yellowfin at 14,700 st and 5,900 st, respectively. (Table 5). The leading supplier was Taiwan, with 48% of the import market, followed by South Korea and Japan with 14% and 12% of the market, respectively. The western Pacific Ocean was the main source of all three important tuna species (Table 6): skipjack (61,200 st), albacore (14,100 st) and yellowfin (11,800 st).

Contract prices for domestically caught tuna delivered to U.S. canners in the third quarter of 1992 were substantially lower than 1991 prices for all categories of fish (Table 7). Prices are at exceptionally low levels not seen since 1985.

U.S. imports of canned tuna packed in water totaled 32,400 st for the third quarter of 1992 and 133,800 st for the first nine months of the year.

**Table 4.** U.S. cannery receipts (st) of domestic and imported tuna by species for the first three quarters of 1991, 1992 and the recent (1987-91) averages. Totals may not add due to rounding.

| Jan-Sep | Source | Albacore | Skipjack | Yellowfin[1] | TOTAL |
|---|---|---|---|---|---|
| 1991 | DOMESTIC | 5,900 | 95,400 | 34,300 | 135,700 |
| | IMPORTED | 52,200 | 83,100 | 47,700 | 182,900 |
| | TOTAL | 58,200 | 178,500 | 82,000 | 318,600 |
| 1992 | DOMESTIC | 4,900 | 112,400 | 37,000 | 154,200 |
| | IMPORTED | 72,300 | 64,500 | 26,400 | 163,200 |
| | TOTAL | 77,200 | 176,900 | 63,300 | 317,400 |
| 1987-91 Average | DOMESTIC | 4,800 | 80,500 | 79,800 | 165,100 |
| | IMPORTED | 68,600 | 81,100 | 50,100 | 199,700 |
| | TOTAL | 73,400 | 161,600 | 129,800 | 364,800 |

[1]May include a small amount of bigeye tuna.

**Table 5.** U.S. cannery imports (st) of tuna by species[1] and source (flag of catcher vessel) for the third quarter of 1992. Totals for the third quarter of 1991 are given for comparison. Note that the flag of the catcher vessel does not necessarily reflect the country of export or point of shipment. Totals may not add due to rounding.

| COUNTRY | 1992 | | | | 1991 |
|---|---|---|---|---|---|
| | ALB | SKJ | YFT[2] | TOTAL | TOTAL |
| ECUADOR | * | 700 | 400 | 1,100 | 3,100 |
| MICRONESIA | 0 | 1,400 | 200 | 1,600 | 0 |
| FRANCE | 300 | 100 | 0 | 400 | 5,900 |
| GHANA | 0 | 1,900 | 300 | 2,200 | 7,000 |
| GRAND CAYMAN | 100 | 100 | 100 | 300 | 200 |
| JAPAN | 6,000 | 100 | * | 6,100 | 8,200 |
| NEW ZEALAND | 100 | 0 | 0 | 100 | 400 |
| PANAMA | 900 | 800 | 200 | 1,800 | 2,000 |
| PORTUGAL | 400 | 0 | * | 400 | 200 |
| SOUTH AFRICA | 2,100 | 0 | 0 | 2,100 | 0 |
| SOUTH KOREA | 400 | 4,500 | 2,300 | 7,200 | 4,100 |
| SPAIN | 500 | 100 | 0 | 600 | 7,900 |
| TAIWAN | 18,400 | 3,700 | 1,600 | 23,700 | 18,000 |
| TONGA | 100 | * | 0 | 100 | 100 |
| U.S.A. | 0 | 100 | 0 | 100 | 300 |
| VANUATU | * | 200 | 100 | 300 | 300 |
| OTHER | 100 | * | 0 | 100 | 2,100 |
| UNKNOWN | * | 1,000 | 700 | 1,700 | 0 |
| TOTAL (as received) | 29,300 | 14,700 | 5,900 | 49,800 | 59,800 |
| TOTAL (estimated rnd wt)[3] | 29,300 | 18,000 | 8,100 | 55,500 | 69,200 |

*Less than 100 st reported for this category.

[1]ALB=albacore; SKJ=skipjack; YFT=yellowfin.

[2]May include a small amount of bigeye tuna.

# U.S. TUNA FISHERIES UPDATE

## EASTERN PACIFIC PURSE SEINE FISHERY

In 1992, 10 U.S. purse seiners caught an estimated 20,600 metric tons (mt) of yellowfin tuna and 14,200 mt of skipjack tuna in the eastern tropical Pacific (Figure 1). The yellowfin catch was down 6% from the 1991 catch (21,900 mt), while the skipjack catch was up 21% from the 1991 catch (11,700 mt). The fleet continues to be affected by "dolphin safe" policies and is concentrating its effort on skipjack and yellowfin not associated with dolphins. However, 5 U.S. vessels did catch tuna associated with dolphins in 1992 with an incidental dolphin mortality of 438 animals, the lowest annual total on record.

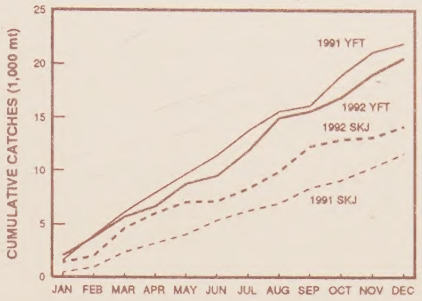


**Figure 1.** Cumulative tuna catches, by month, for the U.S. eastern Pacific purse seine fishery, 1991 and 1992.

## WESTERN PACIFIC PURSE SEINE FISHERY

According to reports received by SWFSC, 45 U.S. purse seiners fishing in the western tropical Pacific under the South Pacific Tuna Treaty landed an estimated 115,200 mt of skipjack tuna and 40,100 mt of yellowfin tuna in 1992. (Figure 2). Skipjack landings were down 33% from the 1991 landings (171,400 mt) and yellowfin landings were up 10% from (36,500 mt). The 1992 totals are preliminary and may understate the actual landings due to delays in reporting transshipped catches.

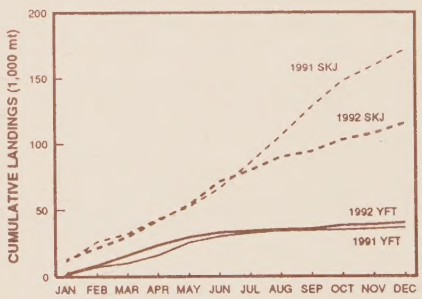


**Figure 2.** Cumulative tuna landings, by month, for the U.S. western Pacific purse seine fishery, 1990 and 1991.

## NORTHERN PACIFIC ALBACORE FISHERY

The 1992 U.S. troll season ended in mid-November. The preliminary landings total is approximately 4,500 mt, compared to 1,851 mt landed in 1991. The 1992 total is the highest since 1989.

Table 6. Receipts (st) of tuna by U.S. canneries by species[1] and area of capture for the third quarters of 1991 and 1992. Totals may not add due to rounding.

| SOURCE | 1991 | | | 1992 | | |
|---|---|---|---|---|---|---|
| | ALB | SKJ | YFT[2] | ALB | SKJ | YFT2 |
| **E. ATLANTIC OCEAN** | | | | | | |
| DOMESTIC | 0 | 0 | 0 | 0 | 0 | 0 |
| IMPORTED | 3,000 | 8,900 | 2,800 | 8,200 | 2,200 | 400 |
| TOTAL | 3,000 | 8,900 | 2,800 | 8,200 | 2,200 | 400 |
| **W. ATLANTIC OCEAN** | | | | | | |
| DOMESTIC | 0 | 200 | 300 | 0 | 0 | 0 |
| IMPORTED | 3,300 | 100 | 600 | 6,300 | * | 200 |
| TOTAL | 3,300 | 200 | 900 | 6,300 | * | 200 |
| **E. PACIFIC OCEAN** | | | | | | |
| DOMESTIC | 900 | 1,300 | 3,200 | 1,900 | 3,700 | 1,100 |
| IMPORTED | 0 | 2,000 | 2,000 | 100 | 700 | 400 |
| TOTAL | 900 | 3,300 | 5,200 | 2,100 | 4,400 | 1,400 |
| **W. PACIFIC OCEAN** | | | | | | |
| DOMESTIC | * | 40,200 | 2,400 | * | 49,800 | 6,900 |
| IMPORTED | 11,000 | 9,300 | 3,300 | 14,100 | 11,500 | 4,900 |
| TOTAL | 11,100 | 49,500 | 5,600 | 14,100 | 61,200 | 11,800 |
| **INDIAN OCEAN** | | | | | | |
| DOMESTIC | 0 | 0 | 0 | 0 | 0 | 0 |
| IMPORTED | 2,000 | 8,500 | 3,100 | 600 | 300 | 0 |
| TOTAL | 2,000 | 8,500 | 3,100 | 600 | 300 | 0 |

*Less than 100 st reported for this category.

[1]ALB=albacore; SKJ=skipjack; YFT=yellowfin.

[2]May include a small amount of bigeye tuna.

Table 7. Contract price ranges (U.S. $ per st) for skipjack and yellowfin tuna for delivery to U.S. canneries in American Samoa and Puerto Rico by U.S. vessels arriving from trips in third quarter 1991 and 1992.

| SIZE CLASS (lbs.) | SKIPJACK | | YELLOWFIN | |
|---|---|---|---|---|
| | 1991 | 1992 | 1991 | 1992 |
| <3 | 250.00-397.50 | 165.00 | 250.00-397.50 | 165.00 |
| 3 to 4 | 450.00-597.50 | 365.00 | 450.00-597.50 | 365.00 |
| 4 to 7.5 | 645.00-792.50 | 560.00 | 645.00-792.50 | 560.00 |
| 7.5 to 20 | 710.00-857.50 | 610.00 | 720.00-867.50 | 620.00 |
| >20 | --- | --- | 775.00-922.50 | 750.00 |

## SOUTHERN PACIFIC ALBACORE FISHERY

The 1992-93 U.S. troll season commenced in late December 1992 and will continue into April or May 1993. Fishing success through early January was poor for the approximately 40 vessels that started the season. It is speculated that El Niño has affected the fishery by making it difficult to locate fishable concentrations of albacore. It is expected that a few vessels will explore waters to the east of the area usually fished during the early part of the season.

## ATLANTIC BLUEFIN TUNA FISHERY

The U.S. Atlantic bluefin tuna fishery is regulated with an ICCAT annual catch quota of 1,387 mt. As of December 22, the total commercial landing for 1992 stood at 1,031 mt, down 2% from the 1991 commercial landing (1,055 mt) for the same period. The incidental longline category south of 36°N latitude closed on April 10 on the determination that the annual quota of 104 mt for that category would be reached. The fishery for large medium (178-196 cm long) and giant (over 196 cm long) size classes was closed on September 16 to all vessels permitted in the general category when the 531 mt quota (minus a 40 mt set aside for areas south of Cape Cod) was reached. The fishery was closed to all vessels in the harpoon category on October 13 after the annual quota of 53 mt for that category was reached.

*Gary Rensink and Doug Prescott, SWFSC, and Dick Seamans, NMFS Northeast Region, contributed information for this article on fisheries updates.*

# REPORTS

*Editor's note: Original reports are published as a service to subscribers and may not represent the views of the NMFS. Readers should contact the authors of reports for details, if needed.*

## TRACKING STUDY OF DOLPHINS AND TUNA

*Michael Scott, Inter-American Tropical Tuna Commission, c/o Scripps Institution of Oceanography, La Jolla, CA 92037*

The nature of the tuna-dolphin bond is still unclear despite the many years of research devoted to both tunas and dolphins in the eastern Pacific Ocean. The Inter-American Tropical Tuna Commission (IATTC), in cooperation with the NMFS and the University of Hawaii, conducted field research to study the tuna-dolphin relationship by simultaneously radio-tracking spotted dolphins and sonic-tracking yellowfin tuna from the same aggregation. During the 30-day preliminary study (6 November - 5 December 1992), we attempted to capture spotted dolphins and tunas from the same aggregation, attach radio or sonic transmitters to as many individuals of each species as practical, release

them, and monitor their movements. Information from this study will be valuable in two ways. On the scientific side, the study of tuna and dolphin movements and interaction may help explain why tuna and dolphins swim together. On the fisheries-management side, we may determine whether the bond loosens at particular times and, if so, whether the tuna will be vulnerable to fishing at such times.

The dolphins and tuna were encircled by a U.S. tuna purse-seiner, the *Nicole K.*, and tracked from the NOAA ship, R/V *McArthur*, and two 8-meter launches. A skindiver tagged free-swimming yellowfin tuna in the net by lancing the tuna with a sonic transmitter attached to a dart head. We used ultrasonic transmitters that have a nominal longevity of 3 days with an operating range of 0.5-0.75 mile. Some of the transmitters provided information on the depth of the fish as well as their bearing.

The dolphins were caught by swimmers in the net and placed in a raft. The dolphins were outfitted with radio transmitters mounted on plastic saddles that were attached to the dorsal fin with self-releasing devices. We also attached time-depth recorders (TDRs) to some of the dolphin transmitter packages. These devices recorded the depth of the package every 10 seconds, which could then be compared with the vertical movements of tuna tagged with depth-sensitive transmitters. In order to recover the TDR data, we had to recapture the dolphin and remove the package.

Of the 30 days of shiptime available, 21 days were lost due to search/travel time or to poor weather for launching the *McArthur's* tracking boats in areas of high density of spotted dolphins. During the remaining 9 days, 11 sets were made. Six spotted dolphins were tagged during 5 sets, and five yellowfin tuna were tagged during 2 sets. The radio-tracking system worked very well and the dolphins were tracked for up to 2 days. The dolphins did not appear to react to close approach by the tracking launches, nor did they avoid the *McArthur* when tracking from less than 2 miles. None of the tagged tuna were tracked, however, mainly due to difficulties in releasing the tuna from the net.

Tracking the dolphins, even without the simultaneous tracking of the tuna, proved valuable for several reasons. It provided data on the movements and diving times of six spotted dolphins. Their movement speeds and surfacing patterns were recorded under different circumstances (feeding, travelling, behavior during chase or after release from the net). Tracking the dolphins overnight reduced the searching time to find a dolphin-tuna aggregation to set on the next morning. This capability for making repetitive sets on the same dolphins and observing them from the helicopter provided data on the recruitment of tuna to the dolphins. It also allowed us to monitor changes in dolphin herd integrity.

Tracking the dolphins also provided an opportunity to recover the TDRs. We recovered 2 of the 3 TDRs deployed after the dolphins had been at liberty for 25-44.5 hours. A history of the dolphin's diving behavior was preserved on the TDR. This is the first dive-depth data ever collected for spotted dolphins. The diving data can be interpreted to determine the times and depths that the dolphins feed and their preferred swimming depths, particularly in relation to the thermocline.

During this study we have resolved several of the uncertainties that were inherent in such an ambitious project. We discovered that we could capture, tag, and track dolphins effectively. The tracking launches could closely approach the dolphins without disrupting their behavior. The fact that we could recapture individual dolphins to recover TDRs was particularly heartening. We found that the tuna could be tagged by swimmers in the backdown channel. We found that if sufficient numbers of tuna were present, they could be backed out of the net with the dolphins. A thorough analysis of the data collected in this 30-day preliminary study is underway and will be reported at a later date. For future studies, we will refine our methods of tagging the tuna and releasing them from the net nearly simultaneously with the dolphins, thus allowing us to successfully track both species.

# RECENT SWFSC PUBLICATION

*An abstract from a recently published paper written by a SWFSC scientist is presented in this space to announce its availability and report results of tuna research conducted by Center staff.*

## "PHYSIOLOGICAL AND BEHAVIORAL THERMOREGULATION IN BIGEYE TUNA (*THUNNUS OBESUS*)"

*Kim N. Holland[1], Richard W. Brill[2], Randolph K. C. Chang[2], John R. Sibert[3] and David A. Fournier[3]*

*Published in Nature, Volume 358, July 30, 1992*

Tuna are unique among teleost fishes in being thermoconserving. Vascular counter-current heat exchangers maintain body temperatures above ambient water temperature, thereby improving locomotor muscle efficiency, especially at burst speeds and when pursuing prey below the thermocline. Be-

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cause tuna also occasionally swim rapidly in warm surface waters, it has been hypothesized that tuna thermoregulate to accommodate changing activity levels or ambient temperatures. But previous field experiments have been unable to demonstrate definitively short-latency, mammalian-type physiological thermoregulation. Here we show using telemetered data that free-ranging bigeye tuna (*Thunnus obesus*) can rapidly alter whole-body thermal conductivity by two orders of magnitude. The heat exchangers are disengaged to allow rapid warming as the tuna ascend from cold water into warmer surface waters, and are reactivated to conserve heat when they return into the depths. Combining physiological and behavioral thermoregulation expands the foraging space of bigeye tuna into otherwise prohibitively cold, deep water.

# RECENT DEVELOPMENTS IN TUNA FISHERIES

*Editor's note: The following news items, compiled from fishery trade and industry journals, newspapers and NMFS reports, are provided only as a service to our readers. The NMFS does not guarantee their accuracy.*

## UNITED STATES

**Dolphin Conservation Bill Enacted--**The National Oceanic and Atmospheric Administration announced the enactment of the International Dolphin Conservation Act of 1992, negotiated by the Bush administration to help prevent inadvertent killing of dolphins in the yellowfin tuna fishery. "Passage of this bill addresses the overwhelming public opinion and international consensus that the practice of encircling dolphins with nets to catch tuna should be discontinued as soon as possible," said NOAA Administrator John A. Knauss. Key elements of the act are: *(a)* provides for a five-year global moratorium on the practice of catching tuna by encircling dolphins or other marine mammals with nets beginning March 1, 1994; *(b)* establishes a completely dolphin-safe U.S. tuna market after June 1, 1994; *(c)* allows U.S.-funded research for developing methods of fishing that do not involve setting nets around dolphins; and *(d)* Allows the Commerce Department to enforce the moratorium with an embargo of yellowfin tuna and its products from countries that renege on commitments to a moratorium on the encirclement of dolphins. (NMFS *Fisheries Market News Report*, November 2, 1992)

**First Meeting of the U.S.-Japan Consultative Committee of Fisheries--**Government delegations from the United States and Japan met at the Japanese Ministry of Foreign Affairs in Tokyo on November 19-20, 1992, to conduct the inaugural meeting of the U.S.-Japan Consultative Committee on Fisheries. The two countries discussed the full spectrum of fishery issues of common concern, including the management of high seas fisheries, conservation and management of North Pacific and Central Western Pacific tuna resources, whaling, pollock fisheries in the central Bering Sea (the "donut hole"), high seas driftnet fishing, the new Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean, and a host of other fishery issues. The Consultative Committee on Fisheries replaces the U.S.-Japan Governing International Fisheries Agreement (GIFA) which expired on December 31, 1991. It will provide a forum to strengthen the cooperative relationship between the two countries on mutual fishery issues. The next Consultative Committee Meeting will be held in the United States in late 1993. (NMFS *Weekly Highlights*, November 23-27, 1992)

## EASTERN PACIFIC OCEAN

**Mexican Domestic Tuna Consumption Offsets Boycott--**In Mexico the rapid growth in domestic tuna consumption, which is expected to increase by 30,000 tons to 120,000 tons by next year, is helping to offset boycotts of that country's yellowfin tuna exports by the United States, Italy and Spain. Meanwhile, Mexico's tuna fishermen are hatching a plan to try to counteract the results of increasingly wide-spread boycotts of their fish abroad. "Protectionism is at the root of the U.S. and Spanish boycotts," said Felipe Charat, president of the National Fishing Industry Chamber's tuna section, "and we are planning to take measures in late 1992 or early 1993 to compensate for the effects of boycotts which are affecting our ability to displace our additional tuna." No details of the plan were given. (*Pacific Fishing*, January 1993)

## WESTERN PACIFIC OCEAN

**Japan-Australia Tuna Talks--**Japan and Australia have reached agreement on Japanese tuna longlining in Australian waters during the 1992-93 season. A total of 250 Japanese tuna vessels will be granted access to Australian grounds for a fee of $2.8 million, a three percent decrease from the 1991-92 season. The Japanese quota for southern bluefin tuna in the Tasmania region will remain at 400 tons, unchanged from 1991-92. In the tuna fishery off the Australian east coast, the number of Japanese longliners granted access to yellowfin and bigeye tuna remained unchanged at 50 vessels. The number of Japanese longliners granted access to grounds off the Australian west coast, however, was reduced from 40 to 20 vessels. (NMFS *Weekly Highlights*, December 14-18, 1992)

**Japan-Micronesia Tuna Joint Venture--**A joint venture company has been established between the Okinawa Inshore Tuna Association and the Micronesian Fisheries Corporation; it will allow small-scale Japanese tuna vessels (less than 20 GRT) to fish in Micronesian waters. The vessels will be mostly based in Okinawa Prefecture ports, but vessels from other prefectures will also be allowed to participate. The venture company plans to begin operations in March 1993 after purchasing a used airplane which will transport fresh tuna to the Japanese market. The venture is being watched closely by tuna industry observers as a new opportunity for small-scale Japanese tuna vessels. (NMFS *Weekly Highlights*, December 14-18, 1992)

## 1993 TUNA MEETINGS

(Organizer; meeting type: sci=science, adm=administration)

- APR 7-9. Annual Pacific Island Nations-U.S. consultation on purse seine tuna fishery in the South Pacific. Nadi, Fiji. (Forum Fisheries Agency; adm.)
- MAY 17-20. Forty-Fourth Tuna Conference. Lake Arrowhead, California. (Inter-American Tropical Tuna Commission (IATTC) and SWFSC; sci)
- JUN 8-10. Annual Meeting of the IATTC. Port Vila, Vanuatu. (IATTC; adm)
- OCT 4-8. Stock Assessment of West Atlantic Bluefin Tuna Session, International Commission for the Conservation of Atlantic Tunas (ICCAT). Madrid, Spain. (ICCAT; sci)
- NOV 1-5. SCRS Plenary Meeting, ICCAT. Madrid, Spain. (ICCAT; sci)
- NOV 8-12. Annual Meeting of the ICCAT. Madrid, Spain. (ICCAT; adm)
- DEC. Thirteenth North Pacific Albacore Workshop. La Jolla, California. (SWFSC; sci)

## ATLANTIC OCEAN

**ICCAT Meeting in Madrid--**The Eighth Special Meeting of the International Commission for the Conservation of Atlantic Tunas met in Madrid during the week of November 9-13, 1992. A number of important steps were taken to conserve various tuna species in the Atlantic Ocean. ICCAT recommended that all ICCAT countries adopt a "Bluefin Statistical Document" (originally proposed as a "Certificate of Origin") program for all imported bluefin tuna. ICCAT recognized the need to consider future management measures to protect albacore tuna; based on the yield per recruit, ICCAT scientists felt that the north Atlantic albacore stock (especially immature albacore) is being heavily fished. ICCAT also recognized the need to consider future management measures to protect bigeye and yellowfin tunas; stocks of these species are near, at or over maximum sustainable yield. (NMFS *Weekly Highlights*, November 9-13, 1992)

**Tuna Pair-Trawling Raises Concerns--** From time to time someone comes up with a new way to catch fish. The latest is pair-trawling for tuna and swordfish--an old method with a new target. The extra power provided when two boats pull one net allows a larger net to be towed fast enough to catch tuna. The method was pioneered last year by a few vessels from southern New England. However, pair-trawling has its detractors. Many longliners see pair-trawling as a takeover of prime tuna grounds. Longline captains contend that pair-trawlers have been mowing down and destroying their gear. Concern has also been expressed that the dozen or so pairs now working were catching and discarding swordfish. (A permit is required for swordfish, and only a few grandfathered boats are permitted to use nets.) Environmentalists say marine mammals and turtles could be killed in pair nets. So far the success of the pair operations has been the subject of wild speculation and rumor ranging from reports of 20-ton trips of bigeye tuna to negligible catches. "We've been getting quite a few calls about the number of people jumping into it," says Aaron King, a tuna specialist with the National Marine Fisheries Service. Pair-trawling is listed as a category II method under the Federal Marine Mammal Protection Act, meaning it is not considered enough of a threat to require federal observers on the vessels. (*National Fisherman*, December 1992)

**Morocco-Japan Fisheries Agreement--** Japan and Morocco have agreed to allow 30 Japanese tuna longliners to catch bluefin tuna in the Moroccan exclusive economic zone during the 1992-93 fishing season. Unlike in previous years when only a license fee was charged, fishing fees will be divided between a license fee and an access fee. The 1992-93 license fee will be $3,500 per vessel, and the access fee will be $2,000 per vessel. The combined fee of $5,500 thus exceeds the 1991-92 license fee of $5,200 per vessel. The Japanese also agreed, for the first time, to allow a scientific observer on up to 5 vessels (Japan will pay the total observer cost of $27,000) and employ two Moroccan fishermen per vessel (maximum of 10 vessels) on a trial basis. The Japanese tuna industry association, NIKKATSUREN, also agreed to provide equipment worth $24,000 to Morocco (down from $60,000 in 1991-92). (NMFS *Weekly Highlights*, September 28-October 2, 1992)

**Lebanon Begins Canning Tuna--**Lebanon will joins the ranks of tuna and sardine canners when Hermasa completes fitting out a combined canning factory for the General Company of Maritime Fishery and Conservice Ltd. of Chekka.

Start up was due in late 1992. Hermasa has been developing the Middle East market recently, and this factory will use Hermasa equipment to process 20 tons of tuna and 15 to 20 tons of sardines a day. Two Spanish fishing vessels of around 35 meters long have recently been bought by Lebanon for this project. Tuna and herring will also be imported for canning. Cans are being bought in Spain, and the product will be used for domestic consumption and export to Syria. The factory will produce 70,000 cans of sardines a day and 50,000 when on tuna. (*Fishing News International*, November 1992)

## INDIAN OCEAN

**Tuna Vessels for Russia**--The last of 10 tuna purse seiners that Russia ordered from the Astilleros de Huelva shipyard in Spain were to be delivered in December 1992. These vessels are easily recognized because they bear the names of Greek writers and philosophers, e.g., *Aristotel*, *Platon*, *Gomer*, *Demosfen*, etc. The vessels have been fishing for tuna in the Atlantic, but 5 of them have been recently switched to the Indian Ocean fishery. (NMFS *Weekly Highlights*, November 23-27, 1992)

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